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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/027,782	12/20/2001	Peter R.C. Gascoyne	UTSC:736US/MCB	9586

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EXAMINER

SHIBUYA, MARK LANCE

ART UNIT	PAPER NUMBER
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1639

DATE MAILED: 05/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/027,782

Applicant(s)

GASCOYNE ET AL.

Examiner

Mark Shibuya

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 25 November 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-60 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-60 are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Election/Restrictions***

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I(a). Claims 1-6, 7, and 8, drawn to a microparticle fabricated to be dielectrically-dispersive and wherein the microparticle comprises steptavidin, classifiable in class 424, subclass 1.29.
  - I(b). Claims 1-4, and 9, drawn to a microparticle fabricated to be dielectrically-dispersive and wherein the microparticle comprises a fluorescent label, classifiable in class 424, subclass 1.29.
  - I(c). Claims 1-4, 10, 53, and 54, drawn to a microparticle and wherein the microparticle comprises one or more gangliosides and wherein one or more of the gangliosides comprises GM1 ganglioside, classifiable in class 424, subclass 1.29.
  - I(d). Claims 1-4, 10, 53, and 55, drawn to a microparticle and wherein the microparticle comprises one or more gangliosides and wherein one or more of the gangliosides comprises GD1a ganglioside, classifiable in class 424, subclass 1.29.
  - I(e). Claims 1-4, and 12, drawn to a microparticle fabricated to be dielectrically-dispersive and wherein the microparticle comprises a vesicle, classifiable in class 424, subclass 1.29.

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- II (a). Claims 13-18, and 24-32, drawn to a library of microparticles comprising a dielectrically-dispersive material and wherein the microparticle comprises streptavidin, classifiable in class 424, subclass 1.29.
- II(b). Claims 13-16, 19, and 24-32, drawn to a library of microparticles comprising a dielectrically-dispersive material and wherein the microparticle comprises a fluorescent label, classifiable in class 424, subclass 1.29.
- II(c). Claims 13-16, 20, and 24-32, drawn to a library of microparticles comprising a dielectrically-dispersive material and wherein the microparticle comprises one or more gangliosides, classifiable in class 424, subclass 1.29.
- II(d). Claims 13-16 and 21-32, drawn to a library of microparticles comprising a dielectrically-dispersive material and wherein the microparticle comprises a vesicle, classifiable in class 424, subclass 1.29.
- III (a). Claims 33-38, and 43-52, drawn to methods for forming a library of dielectrically-dispersive microparticles a library of microparticles comprising a dielectrically-dispersive material and wherein the microparticle comprises streptavidin, classifiable in class 435, subclass 4.
- III(b). Claims 33-36, 39, and 43-52, drawn to methods for forming a library of dielectrically-dispersive microparticles a library of microparticles

comprising a dielectrically-dispersive material and wherein the microparticle comprises a fluorescent label, classifiable in class 435, subclass 4.

III(c). Claims 33-36, 40, and 43-52, drawn to methods for forming a library of dielectrically-dispersive microparticles a library of microparticles comprising a dielectrically-dispersive material and wherein the microparticle comprises one or more gangliosides, classifiable in class 435, subclass 4.

III(d). Claims 33-36 and 41-52, drawn to methods for forming a library of dielectrically-dispersive microparticles a library of microparticles comprising a dielectrically-dispersive material and wherein the microparticle comprises a vesicle, classifiable in class 435, subclass 4.

IV. Claims 56-59, drawn to methods for controlling the aggregation of microparticles, comprising modulating the surface charge of one or more microparticles, classifiable in class 435, subclass 7.1.

V. Claim 60, drawn to methods for identifying one or more complexes within a sample comprising engineered microparticles having streptavidin and different dielectric properties, classifiable in class 435, subclass 7.5.

The inventions are distinct, each from the other because of the following reasons:

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2. Inventions of Group I (a)-(e) and the inventions of Group II (a)-(d), Group III (a)-(d), are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions the libraries of two or more engineered microparticles and the methods for forming said libraries are not disclosed as capable of use with an engineered microparticle and have different functions as the engineered microparticle of Group I (a)-(e) having specific dielectric may be used to form a specific customized vesicle.

3. Inventions Group III (a)-(d) and Group II (a)-(d) are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the library may be produced by forming a second engineered microparticle using a second dielectrically-dispersive material that is completely different from a first dielectrically-dispersive material used to form a first engineered microparticle.

4. Inventions of Group I (a)-(e), Group II (a)-(d), Group III (a)-(d), and the inventions of Groups IV and V are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that

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product (MPEP § 806.05(h)). In the instant case the microparticles and libraries thereof can be used for labeling a sample, which is a different process of using from controlling aggregation of microparticles, or identifying microparticle-associated streptavidin biotin complexes.

5. The inventions of Group I (a)-(e) are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions have not been disclosed as capable of use together, and have different modes of operation based on their different physical and / or chemical structures.

6. The inventions of Group II (a)-(d) are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions have not been disclosed as capable of use together, and have different modes of operation based on their different physical and / or chemical structures.

7. The inventions of Group III (a)-(d) are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions have not been disclosed as capable of use together, and have different modes of operation based on their different physical and / or chemical structures.

8. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

9. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

10. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

11. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Shibuya whose telephone number is (571) 272-0806. The examiner can normally be reached on M-F, 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Wang can be reached on (571) 272-0811. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
**PADMASHRI PONNALURI**  
**PRIMARY EXAMINER**

Mark Shibuya  
Examiner  
Art Unit 1639

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